

PROCEEDINGS OF THE  
ROYAL ENTOMOLOGICAL SOCIETY  
OF LONDON

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VOLUME 8.

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GENERAL MEETING

WEDNESDAY, 1ST DECEMBER, 1943, at 3.30 p.m.

AGENDA

1. Confirmation of the Proceedings of the General Meeting held on 3rd November, 1943.
2. Recommendations of candidates for Fellowship.
3. Announcement of election of new Fellows.
4. The following additions have been made to the Library since the meeting on 3rd November, 1943.

*Presented.*

Beeson, C. F. C. : *The ecology and control of the forest insects of India and the neighbouring countries.* Dehra Dun, 1941. [The author.]

Smart, J. : *A handbook for the identification of insects of medical importance. With chapters on fleas by Karl Jordan, and on arachnids by R. J. Whittick.* British Museum (Natural History), 1943. [The Trustees.]

China, W. E., and Parshley, H. M. (Editors) : *General Catalogue of Hemiptera. Fasc. IV (Fulgoroidea), Part 3, Araeopidae (Delphacidae).* By Z. P. Metcalf, 1943. [Mr. N. D. Riley.]

Ross, E. S., and Roberts, H. Radclyffe : *Mosquito Atlas. Part II. Eighteen Old World Anophelines important to Malaria.* American Entomological Society, 1943.

Schoof, H. F. : The genus *Conotrachelus* Dejean (Col. CURCULIONIDAE) in the North Central United States. [*Illinois biol. Monogr.* 19 (3), 1942.]

Fennah, R. G. : *The citrus pests investigations in the Windward and Leeward Islands, British West Indies, 1937-1942.* Imperial College of Tropical Agriculture, 1942. [The author.]

Jones, F. Morton, and Others : The Lepidoptera of Nantucket and Marthas Vineyard Islands, Mass. [*Publ. Nantucket Maria Mitchel Ass.* 4, 1943.] [Dr. F. Morton Jones.]

Russell, P. F., Rozeboom, L. E., and Stone, A. : *Key to the Anopheline Mosquitoes of the World, with notes on their identification, distribution, biology, and relation to malaria.* American Entomological Society, 1943.

U.S. Department of Agriculture: *North American Fauna*. No. 7, Part II. *The Death Valley Expedition. A biological survey of parts of California, Nevada, Arizona, and Utah*. 1893. [Prof. P. A. Buxton, F.R.S.]

In addition, separates have been presented by the United States Department of Agriculture, the Department of Agriculture, Ottawa, the American Entomological Society, the London School of Hygiene & Tropical Medicine, the Imperial Institute of Entomology, the Council for Scientific & Industrial Research, Melbourne, the United States National Museum, Captain K. J. Hayward, Mr. H. E. Box, the Smithsonian Institution, and Dr. F. E. Zeuner.

5. Admission of Fellows.

6. Nominations for Officers and Council for 1944.

7. Communications.

#### 1. Dr. J. R. Busvine.

Simple experiments on the behaviour of body lice.

[Abstract.]

1. Human body lice, especially the adults, wander about extensively among the undergarments. Within two hours they may travel, for example, from the inside of a vest to the outside of a shirt. 2. A man sleeping in an infested bed is more likely to pick up lice on the rough surface of flannel than on poplin pyjamas. 3. Lice are adept at getting under protective garments. In several experiments they were able to get through the rolled opening of an anti-lice typhus suit. The means of preventing this is to spray the opening before wearing with a strong insecticide.

#### 2. Dr. K. Jordan, F.R.S.

A Chinese rat-flea of the subfamily TUNGINAE.

[Abstract.]

The great mobility of fleas is a means of escape. This advantage has been abandoned by the females of some 30 known species in favour of a stationary life. The sedentary fleas are either fastened to the skin of the host by the mandibles (extracutaneous or stick-tight fleas), or bore into the skin and live in a cyst (intracutaneous or jigger fleas). These species are so flourishing that they have become pests. The female has lost its freedom for the benefit of the species. The great difference in habit from normal fleas is accompanied by changes in morphology. The modification is greatest in the jigger fleas. The Chinese species described as *Tunga caecigena* J. & R. 1921 (*Ectoparasites* 1: 131) may serve as an example of the various changes which take place, a large number of specimens *in situ* in the ears of rats having been sent by Mr. Teng Pin Hui, director of the South Fukien Plague Station. Thirteen pairs of ears contained nearly 190 fleas, the largest numbers being 17 in one ear and 14 in the other of the same rat. Largest inflated specimen 9 mm. long and 6 mm. broad: head external, between four large swellings which project forward; non-inflated female 1 mm. long. As in the American *Tunga*, spiracles of segments V to VII much enlarged, minute on II to IV (generally overlooked). In swollen specimens gut, tracheal system and longitudinal muscles also much enlarged, ovarioles numerous and sprouting.



3. Communications and exhibits the titles of which have been received since the circulation of these agenda.

**Fellows are particularly requested to bring suitable exhibits to the General Meetings even though it may not be possible to announce their intention to do so before the meeting.**

Tea will be served in the Library after the meeting.

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### NOTICE.

Fellows are reminded that systematic papers for which they are anxious to secure early publication can now be published with very little delay in *Proceedings Series B*, provided they do not exceed a length of some eight printed pages.

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PROCEEDINGS OF THE GENERAL MEETING HELD ON 3RD NOVEMBER, 1943.

Dr. E. A. COCKAYNE, M.A., F.R.C.P., President, in the Chair.

Present, 44 Fellows and 4 Visitors.

The minutes of the meeting held on 6th October, 1943, were confirmed and signed by the President.

The Secretary read the name of the following new candidate for election :  
W. P. Colhoun, M.B.

The Secretary announced that the following had been elected a Fellow of the Society : E. F. Williams, Little Pasture, Brentwood, Essex.

Thanks were voted to donors of gifts to the Library since the last meeting.

Mr. S. W. Hedgcock signed the Obligation Book and was admitted a Fellow.

The Secretary read for the first time the following names of Officers and Council nominated for the ensuing year :

*President* : E. A. Cockayne, M.A., M.D., F.R.C.P.

*Treasurer* : Arthur Welti.

*Secretary* : N. D. Riley, F.Z.S.

*Other Members of Council* :

E. A. Andrews, M.A.

S. R. Ashby.

R. B. Benson, M.A.

E. B. Ford, M.A., B.Sc.

A. G. Gabriel.

C. T. Gimingham, O.B.E., F.I.C.

W. J. Hall, D.Sc.

Francis Hemming, C.M.G., C.B.E.

Miss E. M. Ralfs, B.A.

O. W. Richards, M.A., D.Sc.

W. H. Thorpe, M.A., Sc.D.

Rev. C. E. Tottenham, M.A.

C. B. Williams, M.A., Sc.D.

H. B. Williams, LL.D.

Alternative nominations, supported by four properly qualified Fellows, must reach the Secretary before the meeting to be held on 1st December, 1943.

The following paper was read in title :—

“ A review of the classification of the Argynnidi, with a systematic revision of the genus *Boloria* (Lep. NYMPHALIDAE).” By B. C. S. Warren.

Communications were made by Dr. H. E. Hinton and Mr. E. B. Ford, abstracts of which appeared on page 26. Dr. Hinton also discussed the affinities of the British species of *Tinaea* and some related genera.

In addition the following exhibits were made :—

Mr. G. Fox-Wilson exhibited eggs of the Carnation Tortrix Moth, *Cacoecia* (*Tortrix*) *pronubana* Hübner, and an assemblage of earwigs, *Forficula auricularia*, in the flowering stem of *Rheum palmatum*.

Mr. C. N. Hawkins, on behalf of Dr. G. V. Bull, exhibited the two specimens of *Minucia lunaris* Schiff. referred to in his communication of 5th May last (1943, *Proc. R. ent. Soc. Lond.* (C) 8 : 19 & 24) together with one of three Dipterous parasites bred from a third larva taken at the same time. Dr. Bull, in his note which accompanied the exhibit, stated that “ R. South recorded 11 specimens from 1832 onwards. In addition to these, one was taken by G. B. Kershaw at light—Delamere 1913 ” and that he beat 3 larvae in 1942 (July) from oak. One of these larvae produced 3 parasites—of which one was exhibited, and the other two had been given to Dr. Blair. He also exhibited, on the like behalf, the third recorded British specimen of *Catocala electa* View. taken by Mr. D. Molesworth on a window of his house at Hoddesdon, Herts, on 15th September, 1927 (1928, *Entomologist* 61 : 139).

Dr. K. G. Blair exhibited a number of Rose-galls (*Rhodites* spp.) that harbour a great variety of inquiline and parasites, and remarked that little seemed to have been done towards establishing the relations of these *inter se*. The preliminary results of an attempt to do this had proved that the *Rhodites* was attacked by the ichneumon *Orthopelma* as an endoparasite, while *Torymus*, and probably *Oligosthenus*, are its ectoparasites. The inquiline *Perichistus* was the host of *Oligosthenus* and *Eurytoma*, while all these parasites as well as its own species were the victims of *Habrocytus*. The development of the *Perichistus* cells was outlined and the predatory habits of the *Eurytoma* larva described. No information was yet available as to the rôle played by the inquiline *Synergus* or the parasites *Porizon* (Ich.) and *Eupelmus* (Chalc.) that had also been recorded from the galls.

N. D. RILEY, *Hon. Secretary*.

The next Meeting (Annual Meeting) will be held on 19th January, 1944,  
at 3.30 p.m.

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